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Satellite to Study the Space in Space Nears Launch



A satellite that will examine the “empty” space between stars has reached a milestone towards a December launch with its arrival this week at the Vandenberg Air Force Base, Calif., for integration with the launch vehicle.

The Cosmic Hot Interstellar Plasma Spectrometer (CHIPS) satellite, the first in NASA’s University-class Explorers Program, will examine the interstellar medium, the gas that fills the space between stars.

“When you look up in the night sky and see mostly darkness, you get the impression that the volume between the stars must be empty,” said Dr. Mark Hurwitz, CHIPS principal investigator from the University of California, Berkeley. However this space is filled with gas and dust. CHIPS will give us invaluable information in the origin, physical processes and properties of the hot gas in the nearby interstellar medium.”

Just as raindrops split sunlight into the colors of the rainbow, the CHIPS instrument will collect and separate the diffuse extreme ultraviolet glow from the interstellar medium.

By measuring the distribution and intensity of the glow, scientists will be able to test competing theories about the formation of the clouds of hot interstellar gas that surround our solar system.

CHIPS arrived at Vandenberg on October 14. It will fly as a secondary payload, with the Ice, Cloud and Land Elevation Satellite (ICESat) as the primary payload, aboard a Delta II rocket. The launch is currently scheduled for mid-December.

The CHIPS satellite, which weighs 131 pounds and is the size of a large suitcase, will orbit about 350 miles above the Earth. It is expected to operate for one year.

The CHIPS satellite is sponsored by the Office of Space Science, NASA Headquarters. The CHIPS instrument was built at the Space Science Laboratory of the University of California, Berkeley, and the spacecraft bus was built by SpaceDev, Inc. of Poway, Calif. The project is managed at the NASAWallops Flight Facility.

More information on CHIPS is available at: <http://chips.ssl.berkeley.edu>

NASA Mission Demonstrates UAV Technology

A solar-powered uninhabited aerial vehicle (UAV) successfully completed a NASA remote-sensing applications demonstration. The Pathfinder-Plus airplane loitered more than four hours, over Hawaii’s largest coffee plantation on the island of Kauai, taking digital images to make a “clear-sky” mosaic.

The NASA team combined pre-planned, fixed flight lines with spontaneous, remotely controlled maneuvers to guide the UAV into cloud-free areas over the coffee fields. Despite an often 80 percent cloud cover, the project demonstrated how a solar-powered UAV, equipped with a ground-controlled aerial-imaging system, could aid coffee growers by informing them of the ripest fields for daily harvest.

This type of technology may eventually aid farmers and ranchers and lead to more effective and efficient harvesting methods.

For part of the mission, an undergraduate student, 2,500 miles away at California State University, Monterey Bay, Calif., controlled one of the digital cameras remotely.

During the NASA demonstration, the Pathfinder-Plus was based at the U.S. Navy’s Pacific Missile Range Facility at Barking Sands on Kauai. AeroVironment, Inc., a California company, built and operates the aircraft.

Wallops Shorts..... On the Road

Balloon Program Office personnel attended and presented papers at The World Space Congress in Houston, Texas, from October 10-19. The World Space Congress 2002 combines the 34th Scientific Assembly of the Committee on Space Research (COSPAR) and the 53rd International Astronautical Congress (IAC) of the International Astronautical Federation (IAF), International Academy of Astronautics (IAA), and International Institute of Space Law (IISL).

Technology Conference

Chuck Brodell, Shuttle Small Payloads Projects Office, and Charles Lipsett, Carrier Systems Branch, took part in a Teacher Technology Conference in Nashua, N.H., on October 18.

Congratulations to

Jay Pittman, Range and Mission Management Office, who received a NASA Patent Application Award on September 9. The NASA Certificate of Recognition was presented to him for his invention, which has been filed by NASA for a patent with the U.S. Patent and Trademark Office, entitled “A Space-Based Internet Protocol System for Vehicle Tracking Systems, Monitoring & Control.”

Dedicated Donor

The American Red Cross (ARC) has sent a letter of commendation to Don Grant, Computer Sciences Corporation, for dedicated service to the ARC Blood Drives by donating 12 gallons of blood. The ARC commendation stated that each pint of blood donated could have saved the lives of up to four people and thanked Grant on behalf of all the patients he has helped.

Shipping Procedures

To gain better control of government property being shipped from Wallops Flight Facility, a member of the Property Management Team (PMT) must review all GSFC 20-4 shipping documents. The PMT will review GSFC 20-4’s to ensure the information provided on the form pertaining to controlled government property matches the information in the NASA Equipment Management System database and that any equipment meeting the requirements for controlled property is tagged prior to shipment. This does not include GSFC 20-4’s for documents and media.

Shipping documents may either be carried to Building N-222 or faxed to x2432 for review.

If you have any questions relating to this new process, call Alvin Taylor on x1360, Regina Waters on x1337, or Kirk Webb on x1144.

Hunting for Home Hazards

Never leave cooking food on the stovetop unattended, and keep a close eye on food cooking inside the oven.



Keep cooking areas clean and clear of materials that could catch fire, such as pot-holders, towels, rags, drapes and food packaging.

Give space heaters plenty of space. Space heaters should be at least three feet away from anything that could burn. Always make sure to turn heaters off when leaving the room or going to bed.

Solid-fueled heating equipment, including chimneys, chimney connectors, fireplaces, and wood or coal stoves should be inspected by a professional every year and cleaned as often as necessary. This also applies to all other types of fueled heating equipment, including central furnaces and space heaters.

Lit candles should be monitored constantly by an adult and extinguished when adults leave the room or go to sleep.

Use candleholders that won't tip over easily, are made of non-combustible materials, and are big enough to catch dripping wax safely. Never leave children alone with burning candles.

If there are smokers in your home, make sure ashtrays are large and deep and won't tip over. Douse cigarette and cigar butts with water before discarding them.

Keep matches and lighters out of children's sight and reach.

Replace or repair any electrical device with a loose, frayed, or broken cord.

Follow the manufacturer's instructions for plugging an appliance into a receptacle outlet. Avoid plugging more than one high-wattage appliance into a single receptacle.

In homes with small children, receptacle outlets should have plastic safety covers.

To reduce the risk of electrical shock, install GFCIs (ground-fault circuit-interrupters). GFCIs shut off faulty electrical circuits and equipment more quickly than conventional fuses or circuit breakers.

Electrical arcing, often occurring in damaged wires or cords, can generate high temperatures and cause a fire. Arc-fault circuit-interrupters continuously monitor the electrical current in a circuit and will shut it off when an unwanted arcing fault is detected.

2002 Combined Federal Campaign — "Reasons We Give"

by Caroline Massey

The theme for the 2002 Combined Federal Campaign (CFC) is "Reasons We Give". The CFC provides an opportunity for employees to help less fortunate individuals in a time of need.

The goal for the lower Eastern Shore 2002 campaign, which ends October 31, is \$53,000.

As you plan your contribution, please be generous and help create hope and opportunity for the many people who are serviced by the agencies supported by the CFC.

In light of recent events, remember that many local and national organizations within the CFC are involved in alleviating the enormous need for disaster relief.

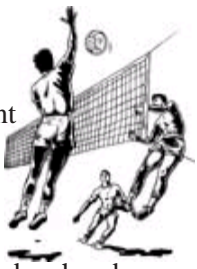
Keyworkers for the 2002 campaign are:

- | | |
|-----------------|------------------|
| Pam Taylor | Cheryl McCready |
| Mickey Merritt | Amy Taylor |
| Sherry Kleckner | Sharon Truitt |
| Regina Waters | Tina Wessells |
| Dorine Trent | Michael Cropper |
| Audrey Young | Charlene Bunting |
| Claudia Fulk | Janie Penn |
| Brenda Harrie | Jim Tracy |
| Betty Hart | Denise Gramlich |

If you have any questions, ask your keyworker or call Pam Taylor on x1068.

**CFC Fun Day
11 a.m. to 1 p.m.
October 30
At the Pavilion**

- Volleyball Tournament
Bake Sale
50/50 Raffle
Chili Cook-off



Lunch is \$3 and includes: hamburger, hotdog, chips, and soda

All proceeds to benefit the Combined Federal Campaign (CFC). For further information or to register your favorite chili contact Pam Taylor on x1068 or Amy Taylor, x1322.

Lunch and Learn

The Employee Assistance Program (EAP) will present a Lunch & Learn in the Williamsburg Room, Building E-2 on October 24. Bring your lunch and join us from 11:30 a.m. to 12:30 p.m. The topic is "Grief and Loss".

We experience grief and loss from many different situations in our lives, not just from the death of someone close to us. For example, we grieve at the loss of a relationship or a change in our health.

Scheduling the use of Annual Leave

The civil service "Leave and Earning Statement" shows the number of hours of annual leave that are in the Use or Lose category, if any. This is the minimum number of hours of annual leave that you must use by January 11, 2003, in order to avoid forfeiture and loss. For most civil service employees, the maximum carryover from one leave year to the next is 240 hours.

If you have a Use or Lose balance, start planning for the use of that leave during the remainder of this leave year and discuss these plans with your supervisor as soon as possible. You should request your leave with as much advance notice as possible.

In some cases, the requirements of an organization may take priority over the opportunity for you to use your Use or Lose leave by the end of the year. If this happens, the organization may request the Center Director to declare an "exigency of the public business". An approved exigency permits the supervisor to deny your leave request based on the organization's need. The leave may be restored for future use.

Leave must be requested by you and approved by your supervisor prior to November 30. Submit the request through the OMNI system or in writing.

You might want to consider donating all or part of your 2002 Use or Lose or prior-year(s) restored annual leave to a Goddard co-worker in need. Last year, GSFC employees forfeited over 11,000 hours of Use or Lose leave. A current listing of leave recipients may be found on the Office of Human Resource's website at: <http://ohr.gsfc.nasa.gov/leave/home.htm>

For more information on the Leave Donor Program or leave exigencies contact Khrista White on x66-9059 or kwhite@pop100.gsfc.nasa.gov

For Sale

2000 Mercury Cougar; power doors, windows and seats; manual transmission; rear spoiler; dual airbags, 6 disc CD changer. 39k miles. Excellent Condition. \$12,500. Call (757) 894-0704 leave a message.



Daylight Saving Time ends at 2 a.m. on Sunday, October 27. Set clocks back 1 hour.

Inside Wallops is an official publication of Goddard Space Flight Center and is published by the Wallops Office of Public Affairs, Extension 1584, in the interest of Wallops employees. Recent and past issues of *Inside Wallops* also may be found on the NASA Wallops Flight Facility homepage: www.wff.nasa.gov

Editor

Betty Flowers